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ABSTRACT

Results of the administration of the Nevada Proficiency Examination Program in 1988-89 are presented. The program, established by legislation in 1977 and amended in 1983 and 1987, provided for the administration of examinations of proficiency and achievement in reading, writing, and mathematics before the completion of grades 3, 6, 9, and 12. It also permitted the adoption of different standards of proficiency for students with diagnosed learning disabilities. The first of two major assessment efforts under the program involves the administration of a nationally normed standardized test of academic achievement in reading and mathematics in the third, sixth, and ninth grades; in language in the third and sixth grades; and in writing in the ninth grade. These tests are intended to identify those students who might require additional assistance in order to maintain the typical pattern of promotion through the grades. The second major assessment effort involves testing of all 11th-graders in reading, mathematics, and writing, using state-developed minimum competency examinations. Eleventh-graders must pass all three examinations to graduate with a diploma; students have a total of four opportunities to pass the 11th-grade examinations. Texts of statute mandating the testing program, scoring guides for the writing assessment, and common test score scales used in education are appended. Three bar graphs and six data tables are included. (TJH)

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The Nevada Proficiency Examination Program
Results of the 1988-89 Examinations

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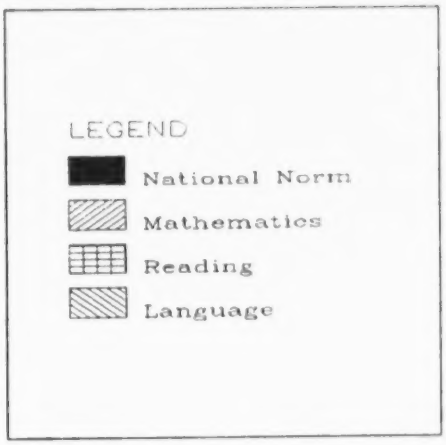
ERRATA

The legends for Figures 1 through 3 were obscured during the printing process. The legend on the right is common to all three Figures. Note that Figure 3 does not report a score for the language test. It uses only the legends for National Norm, Mathematics and Reading.



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Introduction

The Nevada Proficiency Examination Program was established by legislative mandate in 1977. That legislation, as amended in 1983 and 1987 is included as appendix A.

The law provided for the administration of examinations of proficiency and achievement in reading, writing, and mathematics before the completion of grades three, six, nine and twelve. It also permitted the adoption of different standards of proficiency for pupils with diagnosed learning disabilities and prohibited the disclosure of the content of the tests or their correct answers, except as required to administer or evaluate the examinations or to a state officer who required the information in the performance of his/her duties.

Legislation passed in 1979 required that the results of these examinations be reported to the State Superintendent of Instruction, annually.

The proficiency examination program can be conceptualized as consisting of two major assessment efforts. The first involves the administration of a nationally normed standardized test of academic achievement in reading and mathematics at grades 3, 6, and 9; in language at grades 3 and 6; and in writing at grade 9. These tests are intended to identify those students who might require additional assistance in order to maintain the typical pattern of promotion through the grades. The second major assessment effort involves the testing of all eleventh grade students in reading, mathematics, and writing, using state-developed minimum competency examinations. Students must pass all three examinations is a precondition for receiving a standard high school diploma. Although the examinations are initially administered at grade eleven, students who fail to pass them on their first attempt are given three additional opportunities to take the test(s) previously failed, during their senior year. A student who fails to pass one or more of the high school proficiency examinations may be awarded a certificate of attendance, in lieu of a diploma, if he/she has reached the age of seventeen years.

Results for these two major components of the Nevada Proficiency Examination Program are presented in separate sections in the report that follows.

The Nevada Proficiency Examination at Grade 3, 6, and 9

The Tests

Regulations which govern the Nevada Proficiency Examination Program are to be found in Chapter 389 of the Nevada Administrative Code (see Appendix B). These regulations prescribed that the Total Reading, Total Mathematics, and Total Language scales of the Stanford Achievement Test , 7th edition (SAT7), be administered as examinations of achievement and proficiency at grades three and six in the 1988-89 academic year. The language test of the SAT7 was prescribed as an appropriate measure of writing proficiency at these grades, in lieu of one or more direct writing samples.

At grade nine, the Total Reading and Total Mathematics scales of Scientific Research Associates' Survey of Basic Skills, 1985 (SBS85), were prescribed. Writing at grade nine was assessed using a test developed and scored by the Nevada Department of Education. It consisted of one writing sample on each of two specified topics. The samples were holistically scored for the students' ability to convey a clear and coherent message on the assigned topic.

Times of Administration and Scoring

The procedures for the administration of the proficiency examinations, specified in the Code, permit the administration of the standardized tests during any time period for which adequate national norms are provided. Thus, school districts had the option of administering the tests either during a specified period in the fall of 1988 or during a similar period in the spring of 1989. Each student's performance was then compared to the performance of a representative national sample of students who took the same test during comparable periods in the 1981-1982 academic year. This procedure yielded a percentile score for each student that indicated the percentage of students in the 1981-82 normative sample that scored at the same level or lower. This was the metric used to determine whether or not the student met the minimum proficiency standard. Since students tested in the fall were compared to their counterparts who took the tests in the fall and those tested in the spring were compared to counterparts tested in the spring, the percentile scores are comparable, expressing the student's standing relative to his/her appropriate reference group.

The writing test at grade nine required the student to write for approximately thirty minutes on each of two specified topics. Each writing sample was holistically scored on an absolute scale that ranged from one to six. The Scoring Guide for the writing assessment is included as Appendix C of this report. Ninth grade writing tests were administered in October, 1988.

Standards for Proficiency

The scores considered to demonstrate proficiency on the standardized tests administered at grades three and six were the 23rd percentile on the scale of individual norms for the SAT7. That is, students were required to score at or above a level achieved by the lowest 23 percent of the appropriate normative sample to be considered proficient in the subject matter tested.

For the SBS85 examinations in reading and mathematics, administered at grade nine, students were required to score above the 25th percentile to be considered proficient.

Unlike the norm-referenced tests described above, the writing test administered at grade 9 is criterion-referenced. That is, each student is required to demonstrate a predetermined level of achievement in writing in order to be considered proficient, independent of the performance of his/her peers or a comparable reference group. Each writing sample was scored on a scale that ranged from one to six and only students whose total score from the two writing samples was greater than or equal to five were considered to be proficient in writing. The quality of writing required to be judged as minimally proficient can be ascertained from review of the standards for scores of two and three from the scoring guide in Appendix C.

Consequences of Failure to Pass One or More of the Proficiency Examinations at Grade 3, 6, or 9

A students who fails to pass one or more of the proficiency examinations at grades 3, 6, or 9 can be promoted. However, the results of his/her examination(s) are intended to be evaluated to determine what remedial instruction would be appropriate. Schools are expected to provide instruction that differs from the usual course of study in the process of remediation, as the examination results are interpreted to indicate that the student is not making satisfactory progress through the general curriculum.

Results at Grades 3 and 6

The minimum standards for passing the proficiency examinations at grades 3 and 6 were adopted, at least in part, to coincide with the reporting standards of the test publishers. The Psychological Corporation, publisher of the SAT7, reports results for individuals on a variety of scales. One of their standards is the stanine distribution. This scale divides the range of possible scores into nine intervals. Stanines two through eight represent equal intervals on the scale of achievement. That is, the difference between the students scoring at the lower boundary and those scoring at

the upper boundary of each stanine is intended to represent a constant amount of achievement on an absolute scale. As a result, tests which have a normal distribution of scores (the familiar bell-shaped curve) will place different proportions of students in each of the stanines between two and nine. From the chart presented as Appendix D, it can be seen that 7%, 12%, 17%, 20%, 17%, 12%, and 7% of the students tested would be expected to score with the ranges represented by stanines two through eight, respectively. Stanine one represents that 4% of students in the norm group that achieved the lowest scores on the test while the ninth stanine includes the highest scoring 4% of the norm sample.

Using the stanine scale as a reference, students who score in stanines one through three would fail to meet minimum standards. Students who score at stanines four and above would not be considered to require remediation in the subject tested. The selection of the 23rd percentile, the lower boundary of the fourth stanine, as the minimum passing score on these examinations helps to insure that those students who fail the examination are, in fact, achieving at a level that is below-average when compared to the norm group. That is, it is unlikely that the students low score could have resulted solely from errors in measurement.

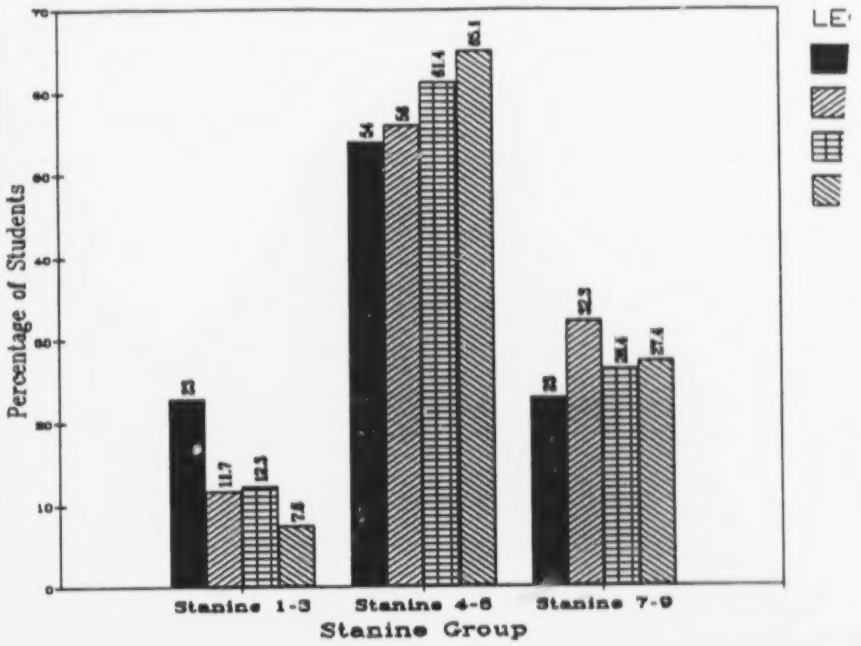
Districts reported test results for grades three and six to the State Department of Education in terms of the number of students scoring within three specified ranges, stanines one through three, stanines four through six, and stanines seven through nine. This makes possible a more informative analysis of state-level results through comparison of the percentages of Nevada students scoring within each range with the percentage of students in the norm group that achieved similar scores. Results for Nevada's third grade students are presented in Table 1.

Table 1. Number and percentage of Nevada's third grade public school students scoring between stanines 1 and 3, 4 and 6, and 7 and 9 on the Total Mathematics, Total Reading, and Total Language scales of the SAT7.

Subject		Number and % of Students in Stanines 1-3	Number and % of Students in Stanines 4-6	Number and % of Students in Stanines 7-9	Total Number Tested and Percent Passing
Mathematics	N	1543	7406	4275	13,224
	%	11.7	56.0	32.3	88.3% passed
Reading	N	1631	8164	3506	13,301
	%	12.3	61.4	26.4	87.7% passed
Language	N	996	8557	3599	13,152
	%	7.6	65.1	27.4	92.4% passed

In Figure 1, Nevada's results in mathematics, reading, and language are presented along with the expected percentages in each of the three stanine groups based on the data from the 1981-82 norm sample for the SAT7.

Figure 1. Percentage of Nevada's third grade students scoring between stanines 1 and 3, 4 and 6, and 7 and 9 in Mathematics, Reading, and Language on the SAT7 compared to expectations from 1981-82 national norms.



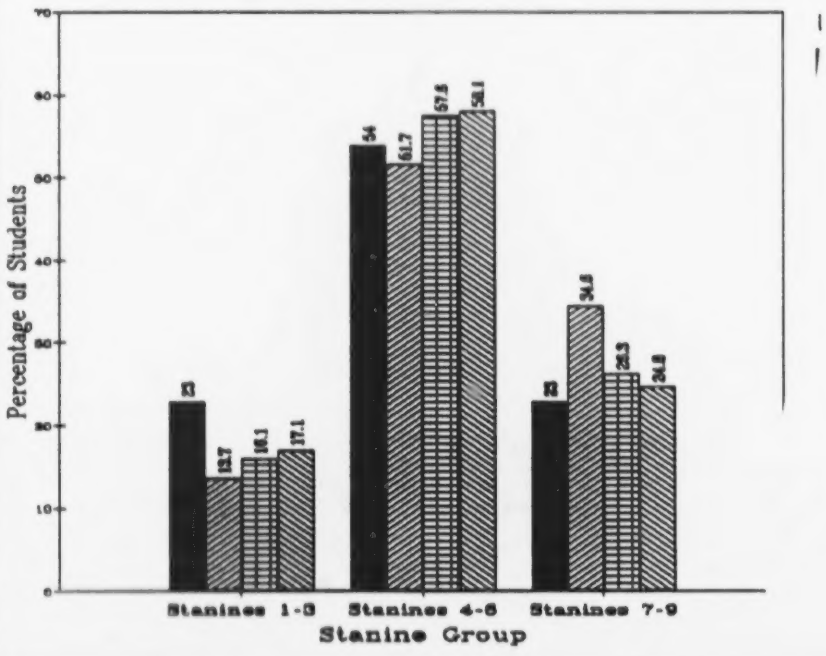
It should be noted, in Figure 1, that the percentage of students that scored in the lowest stanine group (1-3) on each of the three tests represents the percentage of students that failed to meet the minimum proficiency standards on that test. For reading, mathematics and language, that percentage is well below the expected 23 percent. The success of Nevada's third grade students is similarly reflected in the excess of students in the middle and upper stanine groups (groups 4-6 and 7-9).

The distribution of the scores of Nevada's sixth grade students, among the three stanine groups, are presented in Table 2 for mathematics, reading and language and Figure 2 presents the distributions of percentages from Table 1 with the expected percentages of scores in each stanine group, based on the 1981-82 norm sample for the SAT7.

Table 2. Number and percentage of Nevada's sixth grade public school students scoring between stanines 1 and 3, 4 and 6, and 7 and 9 on the Total Mathematics, Total Reading, and Total Language scales of the SAT7.

Subject		Number and % of Students in Stanines 1-3	Number and % of Students in Stanines 4-6	Number and % of Students in Stanines 7-9	Total Number Tested and Percent Passing
Mathematics	N	1,567	5,915	3,961	11,443
	%	13.7	51.7	34.6	86.3% passed
Reading	N	1,864	6,685	3,051	11,600
	%	16.1	57.6	26.3	83.9% passed
Language	N	1,983	6,713	2,868	11,564
	%	17.1	58.1	24.8	82.9% passed

Figure 2. Percentage of Nevada's sixth grade students scoring between stanines 1 and 3, 4 and 6, and 7 and 9 in Mathematics, Reading, and Language on the SAT7 compared to expectations from 1981-82 national norms.



The results at grade six are quite similar to those at grade three. However, the sixth-grade scores do not differ from the norm as markedly as did the scores at grade three.

Results at Grade 9

Scientific Research Associates, publishers of the SBS85, does not use stanines as a standard scale for reporting test results. Instead, they have opted to report scores in terms of the broader quartiles. This scale classifies each students score in one of four categories represented by the proportions of students in the 1985 norm group that achieved similar scores. Each quartile contains the scores achieved by 25% of the norm group. In terms of the more familiar percentile scale, the first quartile represents scores below the twenty-fifth percentile, the second includes scores between the twenty-fifth and fiftieth percentiles, the third contains scores between the fiftieth and seventy-fifth percentiles, and the fourth quartile includes those scores above the seventy-fifth percentile. It can be seen from the chart in Appendix D that the quartile scale is not an equal interval scale. (Note the positions of Q_1 and Q_2 below the line for Percentile Equivalents.) The first and third quartiles each represent a rather narrow range of achievement below and above the mean of the normal curve, respectively, while the range encompassed by the first and the third quartiles is quite broad.

Students who scored at a level below that achieved by the lowest scoring twenty-five percent of students in the norm group were considered to have failed the proficiency examination at grade nine. This criterion for passing the examination provides protection from an inappropriate conclusion of failing, due solely to measurement error, similar to that provided by the criteria for grades three and six.

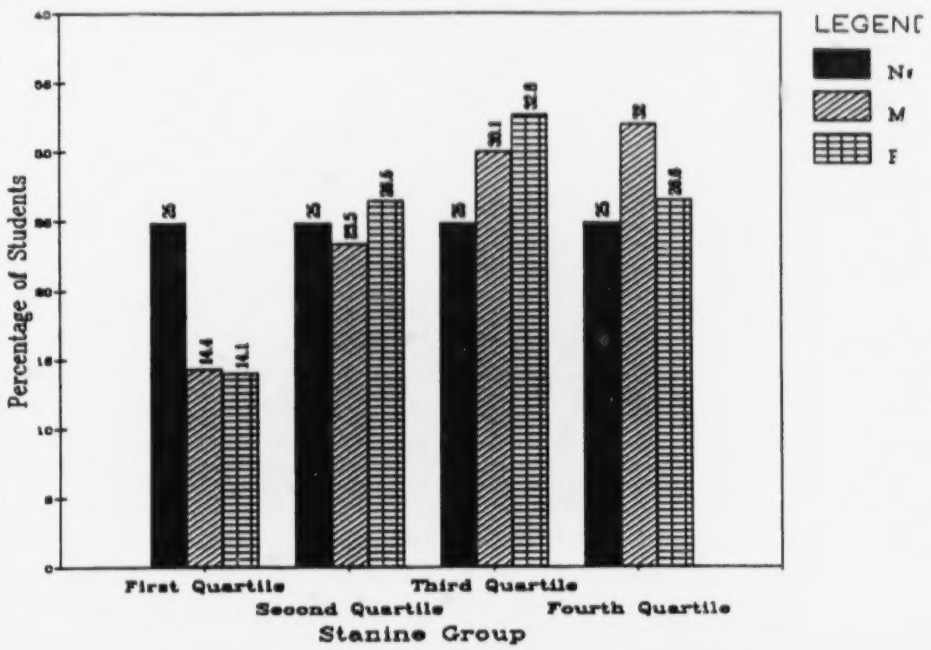
District reports for grade nine consisted of the numbers of students that scored within each of the quartile ranges. Thus, it is possible to represent the achievement of Nevada's student in comparison to the expectation that 25% of students would score within each quartile range achieved by the 1985 norm group for the SBS85. The distributions of scores in mathematics and reading for Nevada's ninth grade students are presented in Table 3.

Table 3. Number and percentage of Nevada's ninth grade public school students scoring in the first, second, third, and fourth quartiles on the Total Mathematics and Total Reading scales of the SBS85.

Subject		Number and % of Students in First Quartile	Number and % of Students in Second Quartile	Number and % of Students in Third Quartile	Number and % of Students in Fourth Quartile	Number Tested and Percent Passing
Mathematics	N	1,454	2,380	3,051	3,246	10,131
	%	14.4	23.5	30.1	32.0	85.6% passed
Reading	N	1,422	2,686	3,320	2,691	10,119
	%	14.1	26.5	32.8	26.6	85.9% passed

Figure 3 presents the comparison of the distributions achieved by Nevada's students with the expected frequencies in each quartile, based on the 1985 national norms for the SBS85.

Figure 3. Percentage of Nevada's ninth grade students scoring between stanines 1 and 3, 4 and 6, and 7 and 9 in Mathematics, Reading, and Language on the SAT7 compared to expectations from 1981-82 national norms.



In Figure 3, the proportion of students that failed to meet minimum proficiency standards is represented by the relative frequencies of scores in the first quartile. Nevada's ninth grade students are markedly under represented in the lowest quartile and notably over represented in the upper two quartiles, relative to the 1985 norm group.

A criterion referenced test, such as the writing test administered at grade nine, is typically designed to answer only a single question. In the case of the Nevada Proficiency Examination Program, that question would be, "Does the student meet the minimum requirements to be considered proficient in the subject area?" However, the holistic scoring guide for the writing samples state multiple criteria. Thus, it is possible to inquire about the proportion of students that achieve at each defined level of proficiency. Table 4 presents the results for the writing test in terms of the highest average level of performance achieved by the proportion of students in the group.

Table 4. Number and percentage of Nevada's ninth grade public school students achieving average scores that represent the criterion levels described in the holistic scoring guide.

Total Score	Criterion Level	Number of Students Achieving This Level	Percent of Students Achieving This Level
12	6	23	.2%
10	5	743	6.7%
8	4	4,087	37.1%
6	3	5,118	46.5%
4	2	852	7.7%
2	1	192	1.7%

Number of Students Taking the Writing Test = 11,015

Number of Students Achieving Total Scores Greater Than or Equal to 5 = 10,531

Percentage of Students Achieving Total Scores Greater Than or Equal to 5 = 95.6%

As indicated in Table 4, 95.6% of Nevada's ninth grade public school students who took the writing test met the minimum requirement for demonstrating proficiency.

Discussion of Results at Grades 3, 6, and 9

The reader should be cautioned not to compare results either across subject areas or across years. These data are cross-sectional and provide one indicator of the status of education in Nevada's public schools at a single point in time. Differences among subject matter areas within a grade level could be accounted for by relatively minor differences in the fit between the contents of the tests used and curricula employed by the schools. Differences among grade levels could represent similar differences in test content across grade levels or minor differences among cohorts, the particular group of students at a grade level in a particular year.

Those consistencies that can be gleaned from the data are generally positive. Nevada's public school students achieved at a higher level than their counterparts in the norm group on all normed referenced measures administered at grades three, six, and nine. About the only consistent pattern across grade levels is the fact that a higher proportion of students scored in the highest category of scores in mathematics than in the other subjects tested using norm-referenced measures. These data do provide evidence consistent with the hypothesis that the average achievement of students, relative to their norm group, drops from grade three to grade six. However, the evidence is far from overwhelming. The fact that the norm-referenced tests administered at grade 9 were from a different publisher, utilized more recent norms, and were reported on a different scale than the SAT7 negates the value of those data for comparisons across grade levels.

The higher percentage of students that met the minimum requirements for proficiency in writing cannot be interpreted to mean that Nevada's students write better than they read or calculate. It does mean that more than 95% of the students tested demonstrated their ability to produce at least one writing sample that met or exceeded the criterion described for a score of three. A similar statement cannot be made for student performance on the norm referenced measures. Individuals who have an intimate knowledge of the contents of the norm-referenced measures might be able to describe the differences in the types of behavior that might be expected from students who scored at different levels on the test. Even the well informed layman could not be expected to provide such a description. He can only be certain that, whatever behaviors are being sampled, Nevada students showed more of them than the norm-reference groups

The Nevada Proficiency Examination Program at Grade 11

The Tests

The Nevada High School Proficiency Examination consists of examinations in reading, writing, and mathematics, developed by the Nevada Department of Education. The initial administration of these examinations at grade eleven satisfies the statutory requirement that each student demonstrate proficiency in these basic skill areas before completion of grade 12. It also makes available a year for remediation, during which a student who fails one or more examinations on his/her first attempt is given three additional opportunities to pass the test(s).

The contents of these high school proficiency examinations are described in the Nevada Administrative Code. The excerpts of the Code that deal with proficiency testing, included as Appendix B, reflect revisions to the Code which were adopted in the spring of 1988. However, the tests that were administered through the 1988-89 academic year were those developed under earlier regulations, adopted in 1985. The process which provided the foundation for development of the tests used during the 1988-89 academic year, and the competencies which they measured, can be briefly described as follows.

The competency statements that guided the production of these tests were developed in a five-step process. First, a task force of teachers from across the state was convened to determine which competencies should be required for graduation. Second, a task force of teachers, counselors, principals and other school administrators refined the work of the first task force and recommended procedures to be used in setting minimum competency levels for graduation. Third, an advisory commission composed of private citizens and business people reviewed the work of the task forces. Fourth, working from, and generally consistent with the work of the

two task forces and the advisory commission, a committee of Nevada Department of Education staff compiled a set of recommended competencies, and fifth, these recommendations were approved by the State Board of Education as the basis for the Nevada Proficiency Examinations.

When these tasks were completed, concerns were expressed that the examinations in mathematics and reading were not of sufficient difficulty. Reading and mathematics specialists and teachers from around the state were then called together to remedy the situation. This group reviewed both the existing competency statements and those used by other states. They proposed that the scope of both tests be broadened to include higher order skills and submitted their recommendations to the State Board of Education.

The competency statements for the three tests, which were adopted by the board in 1984, to become effective in the spring of 1985, are as follows:

In Reading:

The student must demonstrate minimum basic skills in:

(1) Determining the meaning of words in context;
(2) Identifying the details and main idea of a paragraph;
(3) Identifying the sequence of events in a selection or steps in a set of directions;
(4) Making comparisons and contrasts between persons, events or objects;
(5) Identifying the cause of a given effect or the effect of a given cause;
(6) Distinguishing between fact and opinion; and
(7) predicting outcomes and drawing conclusions based on the material read.

In Writing:

The student must demonstrate skills in:

(1) Composing a clear and purposeful expository paragraph; and
(2) Composing a business letter.

In Mathematics:

The student must demonstrate minimum basic skills in:

(1) Adding, subtracting and multiplying proper fractions or mixed numbers;
(2) Dividing whole numbers and decimals;
(3) Using formulas to find unknown values;
(4) Performing calculations and solving problems involving percentages;

(5) Finding perimeters and areas of rectangles;
(6) Solving problems involving money;
(7) Using systems of measurement and solving problems involving measurements;
(8) Solving problems involving money;
(9) Using systems of measurement and solving problems involving measurements;
(10) Comparing numbers;
(11) Solving problems using information obtained from tables, charts, graphs, maps and scales; and
(12) Solving problems that have multiple steps and involve the skills enumerated in this paragraph.

Times of Administration and Scoring

The writing examination for the High School Proficiency Examinations Program was administered to all eleventh grade students, statewide, on Wednesday, February 8, 1989. Districts administered the examinations in mathematics and reading during the week of February 6-10, at their discretion.

The scales for the mathematics and reading tests of the Nevada High School Proficiency Examination were developed from the results achieved by groups of students who took the examination between 1984 and 1986, depending on the form administered. Scores range from 200 to 800 and the scales were designed to have a mean of 500 and a standard deviation of 100. This is the same scale as that used by the College Entrance Examination Board (C.E.E.B.) for the Scholastic Aptitude Test (S.A.T.).

The writing test at grade eleven, like that at grade nine, consisted of one writing sample on each of two topics. Students were allowed a total of 60 minutes to write on the two prescribed topics. Each sample was holistically scored on a six point scale using the scoring guide in Appendix C.

Standards for Proficiency

For the reading and mathematics tests, a minimum scaled score of 370 was required as a demonstration of proficiency. Ten percent of students who took a test with these scale characteristics would be expected to fail, if the scores on the test were normally distributed, i.e. they produced the typical bell-shaped curve. (See Appendix D for a chart relating the C.E.E.B. scale to other common scales.)

When the scores from the two writing samples were added together, a combined score of 5 was considered passing for the 1988-89 academic year. Since the writing examination is a criterion-referenced examination, no predictions can be made about student success on the examination, merely from a knowledge of the scale characteristics. An understanding of the meaning of the minimum passing score can be gained either from a review of the holistic scoring guide in Appendix C, with particular attention of the requirements for scores of 2 and 3, or through review of a sample of examinations assigned scores of 2 or 3. Unlike the examinations in reading and mathematics, the writing test provides some assurance that particular skill levels have been achieved.

Consequences of Failure to Pass One or More of the Proficiency Examinations at Grade 11

As mentioned in the Introduction, each student must pass the proficiency examinations in all three basic-skills areas, in addition to meeting the other state and district requirements for graduation, in order to receive a standard high school diploma. The intent of the program is to help insure that students who fail one or more examinations on their first attempt receive appropriate remedial instruction in the basic skill(s) in preparation for taking the examination again during their senior year. Three opportunities to retake the test are provided during the senior year, in October, in February and near the end of the academic year. Students cannot be awarded a standard high school diploma until they have satisfactorily passed all three examinations. A student may be awarded a certificate of attendance, in lieu of a diploma, if he/she has reached the age of seventeen years.

Results at Grades 11

The Nevada High School Proficiency Examination scores in mathematics and reading are not normally distributed. Rather than having the bell shape typical of tests which are designed to measure a broad range of academic achievement, the distribution of scores for these proficiency examinations is negatively skewed. That is, many more students score at the high end of the distribution than the low end giving the distribution a long tail to the left, in the range of the lower scores.

The negatively skewed distribution is appropriate for a test designed to measure minimum competency. The long tail indicates that the test is most sensitive in distinguishing among the achievement levels of low-scoring students and the relative lack of power to discriminate at the upper end of the scale is not a concern for a test used for this purpose.

Results for the High School Proficiency Examinations in Mathematics and Reading are reported in Table 5. The distributions of scores are presented in the top half of the table and the data are summarized relative to the minimum criteria for demonstrating proficiency, at the bottom.

Table 5. Distributions of scores on the high school proficiency examinations in mathematics and reading and summary statistics for Nevada's eleventh grade public school students.

	Mathematics			Reading		
# Right	Scale Score	Frequency N	%	Scale Score	Frequency N	%
41-44*	654-800	1961	19.6	756-800	966	9.6
36-40	549-625	2279	22.8	549-680	4482	44.8
31-35	487-535	1904	19.0	466-529	2508	25.1
26-30	437-477	1631	16.3	404-452	1019	10.2
21-25	391-428	1170	11.7	350-393	522	5.2
16-20	344-381	689	7.0	295-340	284	3.0
11-15	289-333	279	2.8	235-285	167	1.7
6-10	215-276	77	0.8	200-220	35	0.4
1-5	200	5	0.0	200	2	0.0
	Minimum Passing Raw Score = 19			Minimum Passing Raw Score = 23		

	Mathematics				Reading				
Number	Mean	S.D.	# Pass	% Pass	Number	Mean	S.D.	# Pass	% Pass
9995	530.9	122.5	9278	92.8	9985	551.4	119.3	9334	93.5

* The maximum raw score possible on the reading examination is 42.

The negative skew of both the mathematics and reading distributions for the eleventh grade is obvious in the distributions presented in Table 5. There is a much higher frequency of students scoring in the higher score ranges than at the lower score values. The summary presented at the bottom of the table includes the number of students that took each test, the scaled score mean and standard deviation for each group, and the number and percentage of students that passed each test. The means for both tests exceed the expected value of 500 by a considerable amount. This could be simply a manifestation of the typical score inflation that occurs with most tests that have extended periods of exposure and use. The variation among the scores, as measured by the standard deviation, also exceeds the expected value of 100. This may be due, in part to the skewed shape of the distribution and is not a matter for concern. The pass rates for these examinations is quite high.

The distribution of scores and a summary of results relating to the minimum requirements for demonstrating proficiency in writing, for the high school proficiency examination, are presented in Table 6 .

Table 6. Number and percentage of Nevada's eleventh grade public school students achieving average scores that represent the criterion levels described in the holistic scoring guide.

Total Score	Criterion Level	Number of Students Achieving This Level	Percent of Students Achieving This Level
12	6	18	.2%
10	5	699	7.0%
8	4	4,661	46.9%
6	3	4,031	40.6%
4	2	408	4.1%
2	1	103	1.0%

Number of Students Taking the Writing Test = 9,920

Number of Students Achieving Total Scores Greater Than or Equal to 5 = 9,657

Percentage of Students Achieving Total Scores Greater Than or Equal to 5 = 97.3%

Unlike the writing test results at ninth grade, the distribution of scores in writing at grade eleven is quite skewed and the success rate is quite high. The higher proportion of students passing the writing test at grade eleven should indicate a real gain in the percentage of students meeting minimum standards, since both the ninth grade and eleventh grade tests are scored according to the same protocol.

Discussion of Results at Grade 11

The percentage of students passing the proficiency examinations in mathematics and reading, on their first attempt at grade eleven, is somewhat higher than the pass rates at grades three, six and nine, in the 1988-89 academic year. The excess of students meeting minimum proficiency levels (the expected percentage is 90%) is consistent with the observation of a higher mean scale score on these tests. Whether they represent real achievement gains is difficult to judge in the absence of a quality external reference.

Unlike the norm-referenced mathematics and reading scores, the writing results indicate a high level of proficiency, relative to the criterion described in the scoring guide. The high pass rate on the criterion-referenced writing examination is consistent with reports of noticeable improvement in the quality of student writing samples by those Nevada English teachers who have participated in the scoring of the writing examinations for a number of years.

The reader should not interpret the failure rate for the eleventh grade examinations, reported above, as the percentage of students who fail to graduate due to their inability to pass the High School Proficiency Examination. The data reported are only for the first attempt. Typical data for testings at grade 12 suggest that approximately 60% of students, who are retaking the examination, pass. When this rate for each of three additional attempts is combined with the initial success rate, it is estimated that less than one percent of Nevada's public high school students fail to receive a standard diploma due to their inability to pass these proficiency examinations. This estimate is based on the entire population taking the examination, of which approximately five percent are classified as exceptional.

APPENDICES

APPENDIX A

Statutes Governing the Nevada Proficiency Examination Program

The Nevada Proficiency Examination Program for the 1988-1989 academic year was based upon the following laws which was passed by the State Legislature in 1977, and amended in 1983 and 1987.

NRS 389.015-.017 - STATUTES RELATING TO STUDENT TESTING

389.015 Achievement and proficiency examinations: Requirements; effect of failure to demonstrate adequate achievement or to pass; disclosure of questions and answers prohibited; exceptions.

1. The board of trustees of each school district shall administer examinations in all public schools within its district to determine the achievement and proficiency of pupils in:

(a) Reading;
(b) Writing; and
(c) Mathematics.

The examinations must be administered before the completion of grades 3, 6, 9 and 12.

2. Different standards of proficiency may be adopted for pupils with diagnosed learning disabilities.

3. If a pupil fails to demonstrate adequate achievement on the examination administered before the completion of grade 3, 6 or 9, he may be promoted to the next higher grade, but the results of his examination must be evaluated to determine what remedial study is appropriate. If a pupil fails to pass the high school proficiency examination administered before the completion of grade 12, he must not be graduated until he is able, through remedial study, to pass the high school proficiency examination, but he may be given a certificate of attendance, in place of a diploma, if he has reached the age of 17 years.

4. The state board shall prescribe standard examinations of achievement and proficiency to be administered pursuant to subsection 1. The questions contained in the examinations and the approved answers used for grading them are confidential, and disclosure is unlawful except:

(a) To the extent necessary for administering and evaluating the examinations.
(b) That a disclosure may be made to a state officer who is a member of the executive or legislative branch to the extent that it is related to the performance of that officer's duties.

389.017 Achievement and proficiency examinations: Submission of results to superintendent of public instruction.

The state board of education shall prescribe regulations requiring that each board of trustees of a school district submit to the superintendent of public instruction, in the form and manner prescribed by the superintendent, the results of achievement and proficiency examinations given in the 3rd, 6th, 9th and 11th grades of public school pupils in the district. The state board shall not include in the regulations any provision which would violate the confidentiality of the test scores of any individual pupil.

APPENDIX B

NEVADA ADMINISTRATIVE CODE (NAC) PERTAINING TO NRS 389.015-.017

389.051 Times to administer examinations.

The board of trustees of each school district shall administer the examinations required by NRS 389.015 in each public school in that district which has the appropriate grades at the following times:

1. For grades 3 and 6, the examinations may be administered at any time during the school year for which the publisher of the examinations has established empirical or interpolated national norms for those examinations.

2. For grade 9, the examinations for reading and mathematics may be administered at any time during the school year for which the publisher of the examinations has established empirical or interpolated norms for those examinations.

3. For grades 9 and 11, the examination for writing must be administered on the second Wednesday in February. If a holiday falls during the week of the second Wednesday in February, the examination must be administered on the third Wednesday in February.

4. For grade 11, the examinations for reading and mathematics must be administered at sometime Monday through Thursday during the week of second Wednesday in February. If a holiday falls during that week, the examinations must be administered at some time Monday through Thursday during the week of the third Wednesday in February.

5. For grade 12, the examination for writing must be administered to pupils in grade 12 who must pass the examination to graduate, on the second Wednesday in February, the last Thursday in April and the third Wednesday in October. If a holiday falls during the week of the second Wednesday in February, the examination must be administered on the third Wednesday in February.

6. For grade 12, the examinations for reading and mathematics must be administered to pupils in grade 12 who must pass the examinations to graduate, at some time Monday through Thursday during the week of the second Wednesday in February, the last Thursday in April and the third Wednesday in October. If a holiday falls during the week of the second Wednesday in February, the examinations must be administered at some time Monday through Thursday during the week of the third Wednesday in February.

7. For adults, the examination for writing must be administered to adult pupils who must pass the examination to graduate, on the second Wednesday in February, the last Thursday in April and the third Wednesday in October. If a holiday falls during the week of the second Wednesday in February, the examination must be administered on the third Wednesday in February.

8. For adults, the examinations for reading and mathematics must be administered to adult pupils who must pass the examinations to graduate, at some time Monday through Thursday during the week of the second Wednesday in February, the last Thursday in April, the last Thursday in June, and at some time Monday through Thursday during the week of the third Wednesday in October. If a holiday falls during the week of the second Wednesday in February, the examinations must be administered at some time Monday through Thursday during the week of the third Wednesday in February.

389.056 Procedures for administration of examinations.

1. Achievement and proficiency examinations must be administered as follows:

(a) For grade 3, all examinations must be administered pursuant to the instructions in "Directions for Administering Stanford Achievement Test: Primary III," copyright 1982 by Harcourt Brace and Jovanovich.
(b) For grade 6, all examinations must be administered pursuant to the instructions in "Directions for Administering Stanford Achievement Test: Intermediate II," copyright 1982 by Harcourt Brace and Jovanovich.
(c) For grade 9, examinations for reading and mathematics must be administered pursuant to the instructions in:

(1) "Survey of Basic Skills: Test Coordinator's Handbook," copyright 1985 by Science Research Associates; and
(2) "Examiner's Manual Survey of Basic Skills: Levels 34-37," copyright 1985 by Science Research Associates.

(d) For grade 9, the examination for writing must be administered pursuant to the instructions in "Administration Manual: Spring 1987 Nevada 9th Grade Proficiency Examination in Writing," adopted by the department of education.
(e) For grades 11 and above, the examinations must be administered pursuant to the instructions in "Administration Manual: 1986-87 Nevada High School Proficiency Examination Mathematics, Reading and Writing," adopted by the department of education.

2. Each school principal shall, on a form developed by the department of education, verify that the procedures established in this section have been followed at his school.

389.061 Specific examinations required.

The following examinations must be used as examinations of achievement and proficiency:

1. For grade 3, the total reading section, mathematics section and language section of the Primary Level III, Stanford Achievement Test, 7th edition.

2. For grade 6, the total reading section, mathematics section and language section of the Intermediate Level II, Stanford Achievement Test, 7th edition.

3. For grade 9:

(a) The reading and mathematics sections of the Survey of Basic Skills Level 37, 1985 copyright.
(b) The Nevada Proficiency Examination in Writing for the 9th grade prescribed by the department of education for each testing period.

4. For grades 11 and above:

(a) The Nevada High School Proficiency Examination in Reading;
(b) The Nevada High School Proficiency Examination in Mathematics; and
(c) The Nevada High School Proficiency Examination in Writing for the 11th grade and above, prescribed by the department of education for each testing period.

389.066 Scores indicating failure to demonstrate adequate achievement.

A pupil who earns any of the following scores on the examinations administered pursuant to NRS 389.015 has not demonstrated adequate achievement:

1. For grade 3 or 6, a score on the examination for reading, mathematics or writing at or below the twenty-third percentile of the national norms for that examination.

2. For grade 9, a score on the examination for reading or mathematics at or below the twenty-fifth percentile of the national norms for that examination.

3. For grade 9, a score on the examination for writing of below 5.

389.071 Nevada High School Proficiency Examination in Writing.

Each edition of the Nevada High School Proficiency Examination in Writing for the 9th grade to be used after the spring of 1988, and each edition of the Nevada High School Proficiency Examination in Writing for the 11th grade and above to be used after the fall of 1988, must require pupils to write on two topics to be chosen from the following styles of writing:

1. Descriptive or narrative writing;
2. Expository writing; or
3. Persuasive writing.

389.076 Nevada High School Proficiency Examination in Reading.

1. Each edition of the Nevada High School Proficiency Examination in Reading to be used after the fall of 1988 must assess pupils' skills in the following areas:

(a) Vocabulary and determining the meaning of words in context;
(b) Identifying details and main ideas in selections;
(c) Identifying the sequence of events in a selection or steps in a set of directions;
(d) Making comparisons and contrasts;
(e) Identifying causes and effects;
(f) Distinguishing between facts and opinions;
(g) Predicting outcomes and drawing conclusions based on the material read; and
(h) Understanding the author's intent.

2. Pupils may be tested in the areas listed in subsection 1 for:

(a) Their perception of words and the translation of those words into the explicit meaning of the ideas represented (literal comprehension);
(b) Their ability to understand implied meanings and discover relationships (inferential comprehension); and
(c) Their ability to use a background of experience to react to, judge and evaluate ideas or imagery received from the material, including the ability to accept or reject ideas as a result of their evaluation (critical reading).

3. Passages on the examination may include selections:

(a) Relating to literature, social studies, science, mathematics, occupational education, computer education and other areas of study included in the pupils' curriculum; and
(b) From informational materials such as periodicals, manuals, handbooks and other publications.

4. Each examination must contain an equal number of questions from each of the areas listed in subsection 1.

5. All questions on the examination must be presented as multiple choice questions.

389.081 Nevada High School Proficiency Examinations in Mathematics.

1. Each edition of the Nevada High School Proficiency Examination in Mathematics to be used after the fall of 1988 must assess pupils' skills in the following areas:

(a) Adding, subtracting, multiplying and dividing whole numbers, decimals, fractions and percentages using a single step and multiple steps;
(b) Using formulas and simple equations;
(c) Solving problems involving measurements;
(d) Geometry; and
(e) Solving problems using information obtained from tables, charts, printouts, graphs, maps and scales.

2. The examination must emphasize the ability to solve problems and to apply the skills listed in subsection 1, not the ability to perform calculations.

3. Each examination must contain an equal number of questions from each of the areas listed in subsection 1.

4. All questions on the examination must be presented as multiple choice questions.

389.655 Passage of proficiency examinations.

1. A pupil may not be given a standard diploma until he has, after entering grade 11, passed:

(a) The Nevada High School Proficiency Examination in Reading;
(b) The Nevada High School Proficiency Examination in Mathematics; and
(c) The Nevada High School Proficiency Examination in Writing.

2. After entering grade 11, if a pupil passes one of the high school proficiency examinations, he is not required to take that examination again to graduate.

3. Passing scores on the high school proficiency examination are as follows:

(a) In reading, 370.
(b) In mathematics, 370.
(c) In writing, 5.

389.658 Submission of Results of Proficiency Examinations.

1. The board of trustees of each school district shall submit the results of proficiency examinations to the superintendent of public instruction by the time and in the form and manner he requires.

2. The superintendent shall annually notify each board of trustees of the requirements for submitting the results. He shall allow each board adequate time to schedule the examinations, obtain and evaluate the data and submit the results.

3. The duty of a board to submit the results is fulfilled when the superintendent receives the results from the board or from a central reporting agency. (Substituted in revision for NAC 389.090)

389.660 Additional Courses Required When Proficiency Not Demonstrated.

1. If a pupil has not demonstrated his proficiency in English or mathematics or passed the appropriate proficiency examination by the end of the 11th grade, he shall enroll in such additional courses as are appropriate.

2. Each school district shall prepare syllabuses for such additional courses. These syllabuses must include statements of educational methods and strategies which are different from those used in the regular courses. (Substituted in revision for NAC 389.095)

389.662 Proficiency Examinations for Pupil Who Transfers to Nevada High School.

A pupil who transfers to a Nevada high school from another school must pass the proficiency examination, administered pursuant to NRS 389.015, before he is graduated from the Nevada high school. (Substituted in revision for NAC 389.100)

NEVADA HIGH SCHOOL PROFICIENCY EXAMINATION IN WRITING

SCORING GUIDE

WRITING ASSESSMENT

Students should be rewarded for what they do well in response to the topics. All responses are to receive an appropriate score.

Readers should remember that papers were written within the constraints of a time limit (60 minutes for both topics) and without the use of a dictionary.

Papers that fall into the following categories MUST be given to the Table Leader:

- The paper is clearly off-topic.

  Off-topic papers are those whose content bears no resemblance to the assigned topic, not merely those in which the writer appears to have misunderstood the assignment.

- The paper contains obscene or extremely objectional material.

- The paper is blank.

SCORE SIX

A 6 paper is superior. It does ALL OR MOST of the following well:

- Addresses the topic clearly and effectively, showing originality, creativity, and depth of thought.
- Develops ideas in a clear, logical, and detailed manner, displaying effective organization and coherence.
- Uses language effectively with a sense of control.
- Commits few, if any, errors in grammar/usage and mechanics.

SCORE FIVE

A 5 paper is distinctly above average. It is not as outstanding as a 6 paper and may contain SOME OR ALL of the following characteristics:

- Addresses the topic clearly but less effectively.
- Develops ideas well in an organized and coherent manner, but may be less detailed.
- Uses language effectively.
- Commits few errors in grammar/usage and mechanics.

SCORE FOUR

A 4 paper is slightly better than average. It exhibits SOME OR ALL of the following characteristics:

- Adequately addresses the topic.
- Develops ideas in a satisfactory manner with adequate organization and coherence.
- Generally uses language clearly but occasionally displays some wordiness or ineffective diction.
- Commits some errors in grammar/usage and mechanics.

SCORE THREE

A 3 paper is slightly below average. It exhibits inadequacies in SOME OR ALL of the following ways:

- Addresses the topic but does not display mature style or well-developed content.
- Displays minimal development. It may contain irrelevancies and lack of logic, or digress or ramble.
- Uses language that is somewhat limited, simplistic, mundane, or otherwise inappropriate.
- Contains flaws in sentence structure, grammar/usage, and mechanics which do not impede meaning. It indicates some consistent misunderstanding of the conventions.

SCORE TWO

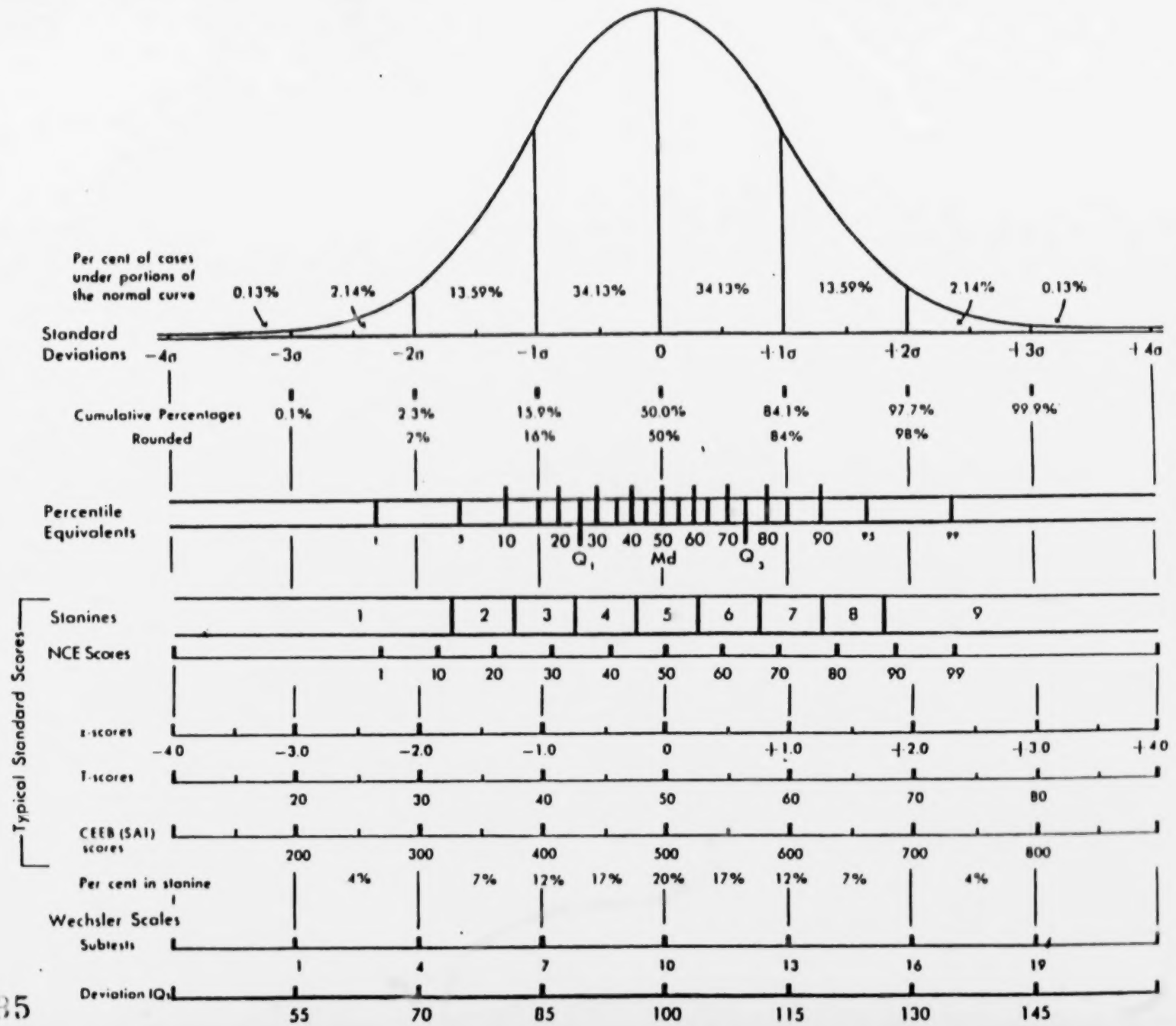
A 2 paper is very weak. It reveals serious and persistent problems in communications. It compounds the weaknesses of the 3 paper in SOME OR ALL of the following ways:

- Addresses the topic but basically lists items with little or no supporting detail.
- Contains serious flaws in development, organization, and coherence.
- Uses language that is highly limited, simplistic, or otherwise inappropriate.
- Displays consistent violations in sentence structure, grammar/usage, and mechanics which impede understanding.

SCORE ONE

A 1 paper is extremely weak. It has few redeeming qualities. It at least mentions the topic but generally fails to communicate with the reader. It does SOME OR ALL of the following:

- Simply repeats the topic or fails to provide adequate information.
- Shows almost no development, organization, or coherence.
- Uses language that shows an immature grasp of vocabulary and diction.
- Overwhelms the reader with serious violations of sentence structure, grammar/usage, and mechanics.


Per cent of cases under portions of the normal curve
0.13%
2.14%
13.59%
34.13%
34.13%
13.59%
2.14%
0.13%
Standard Deviations
−4σ
−3σ
−2σ
−1σ
0
+1σ
+2σ
+3σ
+4σ
Cumulative Percentages
0.1%
2.3%
15.9%
50.0%
84.1%
97.7%
99.9%
Rounded
2%
16%
50%
84%
98%
Percentile Equivalents
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80
90
95
99
Q1
Md
Q3
Typical Standard Scores
Stanines
1
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6
7
8
9
NCE Scores
1
10
20
30
40
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60
70
80
90
99
z-scores
−4.0
−3.0
−2.0
−1.0
0
+1.0
+2.0
+3.0
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T-scores
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CEEB (SAT) scores
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300
400
500
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700
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Per cent in stanine
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17%
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4%
Wechsler Scales
Subtests
1
4
7
10
13
16
19
Deviation IQs
55
70
85
100
115
130
145